February 2022

OPERATIONS' DEPARTMENT MONTHLY REPORT

	HIGH LIFT		LOW LIFT		2022 VS 2021
PUMPAGE	**2021**	**2022**	**2021**	**2022**	HL
Total in MG	330.364	352.820	329.799	354.732	6.80%
Daily Average (MG)	11.799	12.620	11.779	12.669	
Max. Day (MG)	13.433	13.987	13.627	13.984	2022 VS 2020
					HL
Gal/KwH	1,170	1,185	5,193	4,824	2.22%

ELECTRICAL COSTS					
	2021		**2022**		
A. Pumping:	**KwH**	**$**	**KwH**	**$**	
High Lift	280,898	$21,830.97	296,051	$23,921.17	
Low Lift	63,237	$4,914.68	73,034	$5,901.20	
Wash Pump 1	2,100	$163.21	3,500	$282.80	
Georgia St. Bstr.	52,800	$4,868.34	47,700	$4,931.36	
Wilgus Ave. Bstr.	2,800	$349.21	2,800	$377.63	
EE Pit / Bstr.	5,208	$614.81	5,401	$693.16	
Erie Ave. Bstr.	0	$0.00	0	$0.00	$/KwH
Sub Total	407,043	**$32,741.22**	428,486	**$36,107.32**	4.8%
B. Treat./Fiscal/Misc.	**KwH**	**$**	**KwH**	**$**	
Office & Maint. Bldg.	4,941	$574.56	4,601	$479.78	
Filter Plant / Pump Station / 2nd Service	54,765	$4,822.34	56,415	$5,051.01	
					$/KwH
Sub Total	59,706	**$5,396.90**	61,016	**$5,530.79**	0.3%
C. Distribution:	**KwH**	**$**	**KwH**	**$**	
Taylor Hill Tank	2,579	$316.29	2,381	$318.68	
Kohler Meter Pit	0	$0.00	0	$0.00	
EE Tower	1,510	$192.72	1,852	$252.66	
Washington (PRV) Pit	1,643	$219.40	1,338	$197.00	
Sub Total	5,732	**$728.41**	5,571	**$768.34**	$/KwH
Total Electrical Costs	**472,481**	**$38,866.53**	**495,073**	**$42,406.46**	4.1%
Electrical Cost / MG		$117.65		$120.01	

	2021		**2022**		
NATURAL GAS COSTS	CCF Used	Cost	CCF Used	Cost	
Production Facility	1,969	$938.11			
South Basin	3,694	$1,793.02			
Georgia St. Bstr.	91	$107.85			
Erie Ave. Bstr.	486	$468.41			
Wilgus Ave. Bstr.			76	$73.47	
Office & Maint. Bldg.	1,570	$868.60			$/CCF
Total Natural Gas Costs	7,810	**$4,175.99**	76	**$73.47**	80.8%
Natural Gas Cost / MG		$12.64		$0.21	

	2021		**2022**		
CHEMICAL COSTS	Lbs. Used	Cost	Lbs. Used	Cost	
Alum	53,349	$7,548.88	81,457	$14,784.45	28.3%
Carbon	0	$0.00	0	$0.00	#DIV/0!
Chlorine	5,368	$3,703.92	5,729	$8,478.92	114.5%
Fluoride	1,439	$1,564.19	1,739	$2,417.21	27.9%
KMnO4	0	$0.00	0	$0.00	#DIV/0!
Cationic Polymer	44	$68.36	1,371	$2,125.21	-0.2%
Liquid Phosphate	2,409	$3,184.70	3,064	$4,834.99	19.4%
Total Chemical Costs		**$16,070.05**		**$32,640.77**	103.1%
Chemical Cost / MG		$48.64		$92.37	
	Grand Total	**$59,112.57**		**$75,120.70**	27.08%
	Total Cost / MG	**$178.93**		**$212.59**	18.81%

YTD HL 2022 vs 2021	**4.27%**	**YTD HL HIGH DAY PUMPAGE**	**13.987**	**February 17, 2022**
YTD HL 2022 vs 2020	**-0.17%**	**YTD HL LOW DAY PUMPAGE**	**7.587**	**January 1, 2022**

NOTE:
Electrical costs include an Alliant Energy 8.3% rate increase approved by PSC. bills not available.

		YTD HL Ave Day
WPS	**2022**	**12.187**
	2021	**11.557**
	2020	**12.042**

COMPARATIVE SUMMARY OF PLANT OPERATIONS

February 2021 vs **February 2022**

Pumping Record — **High Lift**

	2021	2022	Diff.
Tot. Water in MG	330.364	352.820	6.80%
Daily Average	11.799	12.620	6.96%
Maximum Day	13.433	13.987	4.12%
Minimum Day	9.471	9.989	5.47%
By Natural Gas	1.610	2.433	51.12%
Power in KWH	280,898	296,051	5.39%
Gals. per KWH	1,170	1,185	1.31%
Power $ / KWH	$0.07772	$0.08080	3.96%
Power $ / MG	$66.08	$67.70	$1.62
Tot. Power $/MG	$118.92	$121.26	$2.34

Low Lift

	2021	2022	Diff.
Tot. Water in MG	329.799	354.732	7.56%
Daily Average	11.779	12.669	7.56%
Maximum Day	13.627	13.984	2.62%
Minimum Day	9.496	9.866	3.90%
By Natural Gas	1.416	2.433	71.82%
Power in KWH	63,237	73,034	15.49%
Gals. per KWH	5,193	4,824	-7.11%
Power $ / KWH	----	----	----
Power $ / MG	$14.90	$16.64	$1.74
Tot. Power $/MG	----	----	----

Treatment Chem. — Lbs. Used

Total Lbs.	2021	2022	Diff.
Alum	53,349	81,457	52.69%
Carbon			#DIV/0!
Chlorine	5,368	5,729	6.73%
KMnO4	0	0	#DIV/0!
Polymer	44	1,371	3016.14%
Liquid Phosphate	2,409	3,064	27.19%
Lb/ MG:			
Alum	161.8	229.6	41.96%
Carbon	0.0	0.0	#DIV/0!
Chlorine	16.3	16.2	-0.78%
KMnO4	0.0	0.0	#DIV/0!
Liquid Phosphate	7.3	8.6	18.25%

Cost

Total Cost	2021	2022	Diff.
Alum	$7,548.88	$14,784.45	$7,235.57
Carbon	$0.00	$0.00	$0.00
Chlorine	$3,703.92	$8,478.92	$4,775.00
KMnO4	$0.00	$0.00	$0.00
Polymer	$68.36	$2,125.21	$2,056.85
Liquid Phosphate	$3,184.70	$4,834.99	$1,650.29
Cost / MG:			
Alum	$22.89	$41.68	$18.79
Carbon	#DIV/0!	#DIV/0!	#DIV/0!
Chlorine	$11.23	$23.90	$12.67
KMnO4	#DIV/0!	#DIV/0!	#DIV/0!
Liquid Phosphate	$9.66	$13.63	$3.97

Fluoride:	2021	2022	
Total Lbs.	1,439	1,739	20.85%
mg/l applied as F	0.69	0.67	
Av. Res. Plt. Tap	0.70	0.72	

Fluoride:	2021	2022	
Cost	$1,564.19	$2,417.21	$853.02
Cost/MG	$4.74	$6.85	$2.11

Water Quality: — Raw

	2021	2022
Turbidity	10.50	14.10
pH	8.23	8.20
Alkalinity	114.1	119.0
MF (E-Coli)	0.7	0.3
Temperature	33.0	32.7
Wash-H20 % /LL	1.91	1.77
Av. Flt. Run/hrs	131.3	148.3
Av. ROF / MG	1.32	1.43

TAP

	2021	2022
Turbidity	0.042	0.050
pH	7.63	7.47
Alkalinity	103.2	103.8
Plate Count	0.00	0.00
Colilert	0	0
Temp.	34.1	33.8
Cl Res.	0.89	0.89

Natural Gas:

	2021	2022	
Nat. Gas Heating	2,932	-357	Plant & South Basin
Nat. Gas Pumping	762	357	

2021	2022	Diff.
$2,425.48	#DIV/0!	#DIV/0!
$29.54	#DIV/0!	#DIV/0!

	CCF	Cost	**Natural Gas Cost**	**Natural Gas CCF**
#3 Gas Pump	0.0	#DIV/0!	**$0.00**	**0**
#4 Gas Pump	144.0	#DIV/0!		
#7 Gas Pump	112.5	#DIV/0!		
Electric Generator	100.0	#DIV/0!		
Pumping totals	**356.5**	**#DIV/0!**		

February 2022

% Run		3/1/2022	2/1/2022	
	Elapsed Time:			
68.6%	No. 6 Pump	65,614.1	65,153.4	460.7
3.13%	Wash Pump Meter	5,374.11	5,353.09	21.02
0.7%	No. 7 Pump	742.4	737.9	4.5
0.0%	No. 8 Pump	59,533.6	59,533.6	0.0
99.4%	No. 9 Pump	17,466.0	16,798.0	668.0
0.4%	Wash Pump 2	803	800	3
	No. 1 Prime Pump	1,038.7	1,038.2	0.5
	No. 2 Prime Pump	1,107.7	1,106.8	0.9
Kw/Hr run	**Watthour Meters:**			
166.5	Wash Pump 1	1243.1	1238.1	3,500
59.0	No. 9 Pump	5382.57	5343.14	39,434
#DIV/0!	No. 8 Pump	6834.4	6834.4	0
72.9	No. 6 Pump	10127.3	10007.3	33,600
124.3	Wash Pump 2	82.7317	82.421	373
540.2	No. 1 Pump	8716.245	8604.786	111,459
#DIV/0!	No. 2 Pump	4725.403	4725.403	0
299.1	No. 3 Pump	9599.853	9537.716	62,137
#DIV/0!	No. 4 Pump			0
479.1	No. 5 Pump	9,296.265	9,173.810	122,455
	Garage (MWatt/Hrs.)	1,050.83	1,049.48	1,350
	Power Co. (Step #3)	35,093	34,735	429,600
	Left Meter - OUTSIDE			
	Volume Used:			
	Nat. Gas (Correct)	44,285,900	44,061,227	282,414
	Elapsed Time:			
	Emer. Generator	999.5	994.5	5.0
% Run	**Elapsed Time:**			
30.7%	No. 1 Pump	16,163.5	15,957.2	206.3
0.0%	No. 2 Pump	20,169.26	20,169.26	0.00
30.9%	No. 3 Elec. Pump	33,374.1	33,166.3	207.8
0.0%	No. 3 Nat. Gas Pump	517.9	517.9	0.0
0.0%	No. 4 Elec. Pump	0.00	0.00	0.0
0.5%	No. 4 Nat. Gas Pump	1,697.2	1,694.0	3.2
38.0%	No. 5. Pump	19,444.930	19,189.350	255.580
0.0%	UV Building Generator	117.4	117.4	0

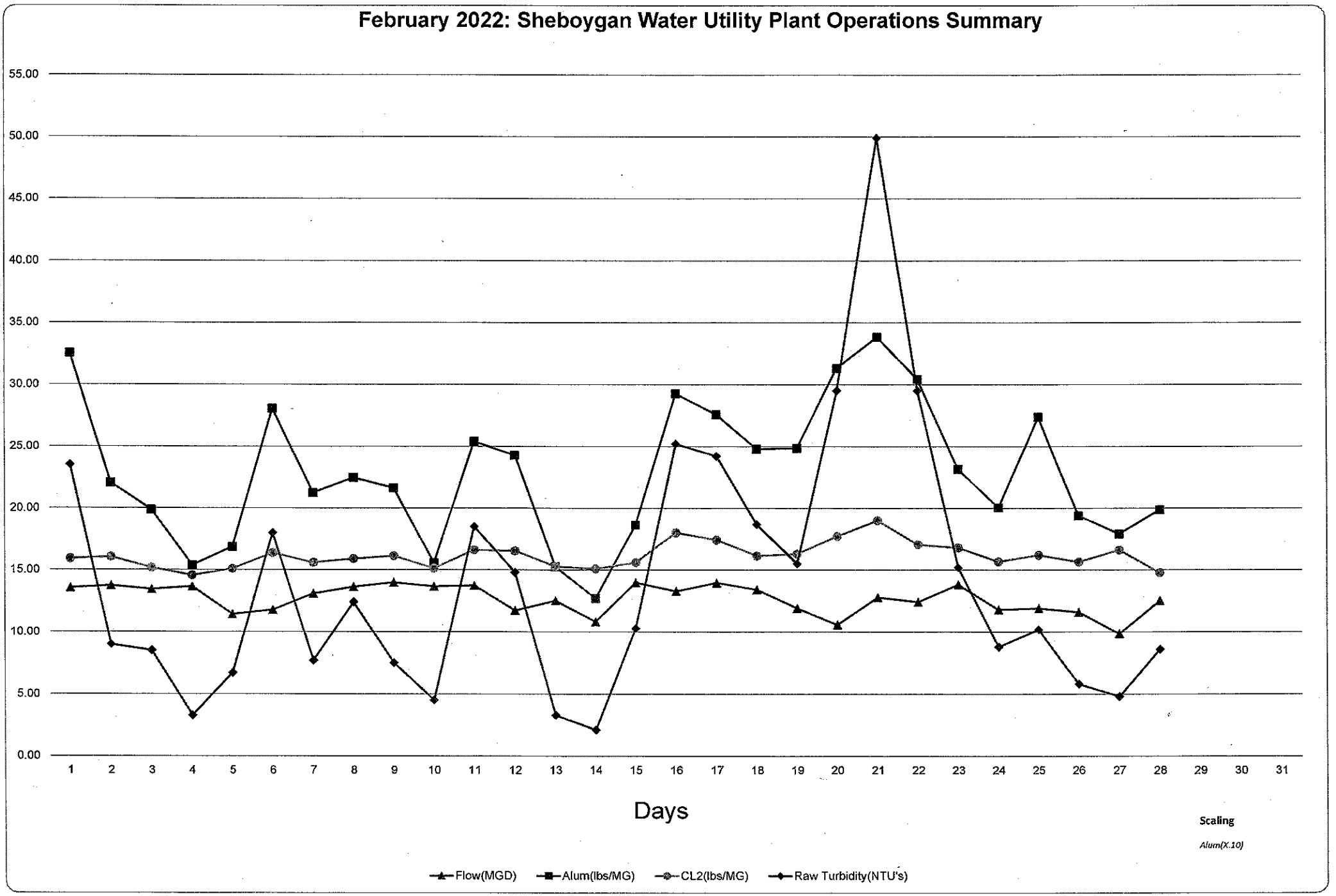
		3/1/2022	2/1/2022	
SLUDGE	No. 1 Hour Meter	0.0	0.0	0
SYSTEM	No. 2 Mag Meter	3,403,699	3,055,869	347,830
	Recycle Meter (Reset to zero each month)			347,830

Power Cost	$0.0808009	Bill >>>>	$34,905.97	
	0.740233333	KWH >>>	432,000	
Init. Chg.	$34,712.05		Low L. KWH	73,034
	$	KWH	L.L. Cost $	$5,901.20
Kohler Pit			High L. KWH	296,051
Horizon	$440.18	3,179	H.L. Cost $	$23,921.17
Taylor	$318.68	2,381		
ALT. 72 Park	$444.14	600	Total Cost	$29,822.37
Geo. Ave.	$4,931.36	47,700		
Wilgus Ave.	$377.63	2,800		
EE Pit	$693.16	5,401		
EE Tower	$252.66	1,852	Plant Costs	$5,051.01
Washington	$197.00	1,338		
Office	$479.78	4,601		
Erie Ave.				
Total	$42,846.64	499,452		

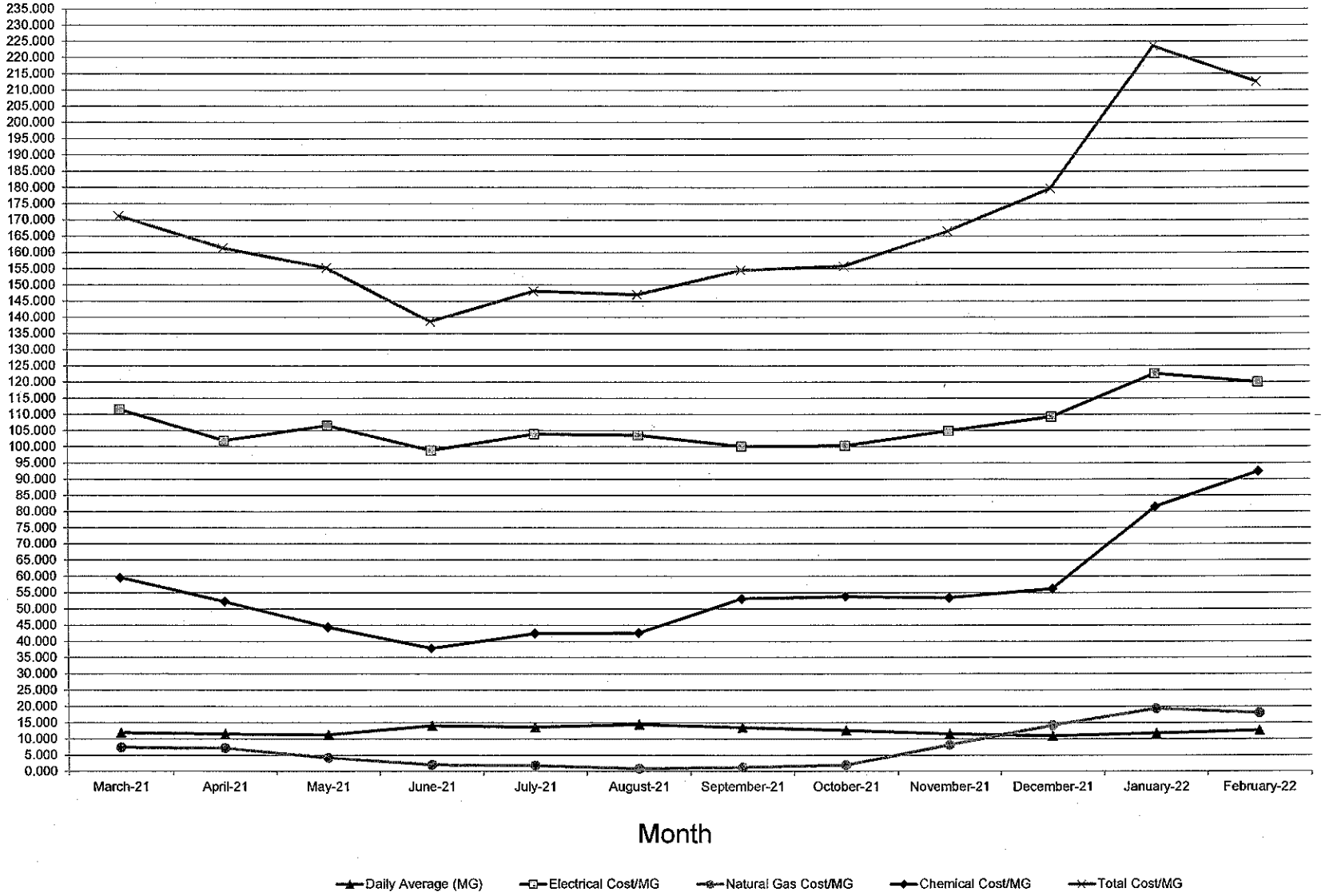
SUMMARY

	HIGH LIFT		LOW LIFT	
	2021	2022	2021	2022
Tot. Pump	330.364	353.356	329.799	354.732
Daily Ave.	11.799	12.620	11.779	12.669
Max. Day	13.433	13.987	13.627	13.984
Min. Day	9.471	9.989	9.496	9.866
By Nat. Gas	1.610	2.433	1.416	2.433
Power KWH	280,898	296,051	63,237	73,034
Gals/KWH	1170	1185	5193	4824
Cost/KWH	$0.07772	$0.08080	*******	******
Cost/MG	$66.08	$67.70	$14.90	$16.64
Tot. Cost/MG	$118.92	$121.26	*******	*******

February 2022: Sheboygan Water Utility Plant Operations Summary



Plant Operations: Expense Report



Filter Plant Maintenance Completed For February 2022

Subject	StartDate	EndDate	Description
Hypo Transfer Pump	1-Feb-22		Rebuild used hypo transfer pump; pump was removed today, had 1 broken bolts, and its Impellor magnets were rubbing.
Plant Garbages	1-Feb-22		Throw garbage and recycling into dumpsters.
Record Room	1-Feb-22		Continue organizing files in record room.
Hypo Transfer Pump	1-Feb-22		Install new hypo transfer pump.
Joshua 1Hr Sick Time	1-Feb-22		Joshua 1hr sick time for Chiro
Generator Water Pump	2-Feb-22		Installed new generator water pump (rebuilt unit), 9 gallons of coolant, 3x 1/8" fittings, and the coolant filter.
Water Pump	2-Feb-22		Fabricate repair bracket for vice, easy out 1/8" fitting from old pump, free 1 1-2" fitting from old pump, and hand machine v-belt pulley.
Menards	2-Feb-22		Purchase 1/8" and ¼" brass fittings for generator water pump repair.
Maintenance Shop	3-Feb-22		Clean floors, organize tools, replace parts, etc.
Wilgus Ave.	3-Feb-22		Return fire extinguisher and collect lab sample for E.
Taylor Hill and Erie Ave.	3-Feb-22		Inspect reagents, return fire extinguishers, and walk grounds.
Horizon and Georgia Ave.	3-Feb-22		Bring fire extinguishers back, check/fill reagents, and walk grounds.
Sewer Lift Pump	7-Feb-22		Look throughout the plant, sheds, and utility for sewer lift pump.
UV East/West	7-Feb-22		Switch UV reactor from West to East train.
Plant Garbage	7-Feb-22		Throw away trash and recycling.
UV Alarms	7-Feb-22		Attempt to diagnose UV communication alarms/issue.
Monday Meeting	7-Feb-22		Raw water improvement project, sewer lift pump, coverage, wash pump 2, pipe gallery lighting, etc.
Dakota Supply Group	9-Feb-22		Purchase new Large sump pump for pipe gallery.
Large Pipe Gallery Sump	9-Feb-22		Remove large pipe gallery sump pump; currently inop. and electrical cord is split.
Wash Pump 2	9-Feb-22		Remove coupling surround and begin cleaning area for grease service.
Sewer Lift Pump, Sump pump, and Water	9-Feb-22		Track down parts, receive quotes, and create PO's.
Wash Pump 2 Shield	10-Feb-22		Grind rust off wash pump 2 coupling shield.
Horizon	10-Feb-22		Collect lab sample, walk grounds, etc.
Taylor Hill and Erie	10-Feb-22		Inspect reservoirs after power outage; Eris also needed reagents for hypo meter.
Trilling's	10-Feb-22		Purchase urinal cakes for plant bathrooms.
EE Pit	10-Feb-22		Adjust mercury switch to repair intermittent pump on/ no flow condition.
Filter 5 NTU	10-Feb-22		Clean filter 5 NTU meter for high reads.
Sump Pit and Garbage's	10-Feb-22		Begin cleaning sump pit in pipe gallery and throw out garbage.
Pipe Gallery Large Sump	10-Feb-22		Install new large sump in the pipe gallery.
Two Large Brackets	10-Feb-22		Fabricate and weld two large brackets to hold pipe gallery drain pipe; behind filter 10 piping.
Joshua Vacation	11-Feb-22		Joshua on vacation.
Pipe Gallery Drain Bracket	11-Feb-22		Grind and sandblast two drain brackets.
Wash Pump 2 Coupling Surround	11-Feb-22		Grind and sandblast wash pump 2 coupling surround.
Monday Meeting	14-Feb-22		Topics include low lift alarm, SCADA upgrades, coverage, data line, etc.
Brackets and Wash Pump 2 Shield	14-Feb-22		Continue priming and painting wash pump 2 surround and drain brackets.
Scanner Extension Cable	14-Feb-22		Fabricate and install new extension cord for upstairs scanner.
Upstairs Comm Cable	14-Feb-22		Run new communication cable for upstairs scanner.
Dakota Supply Group	14-Feb-22		Purchase sample pump impellors.
Joshua Sick Time	15-Feb-22		Dentist 8-9.
Drain Brackets	16-Feb-22		Install two brackets on drain line; by filter 10.
Wash Pump 2	16-Feb-22		Service/grease, clean area, and label.
Wash Pump 2	16-Feb-22		Install coupling shield.
Service Swan Hypo Meters	17-Feb-22		Check, clean, and calibrate East, West, and South SWAN hypo meters.
Water Pump	17-Feb-22		Sand, scrap, clean and prime.
Water Pump	17-Feb-22		Rebuild generator/pump 7 spare water pump.
Maintenance Shop	17-Feb-22		Clean and organize maintenance shop.

Yellow indicates days operating or running labs

SWAN Analyzers	17-Feb-22		Contact Maggie for pricing on SWAN hypo meter tubes.
Operator Area Design and Approval	17-Feb-22		Create layout, get prices, and begin requisition process.
Dan Sick Time	18-Feb-22		Dan off sick time.
Water Pump	18-Feb-22		Continue painting generator water pump.
Filter Tables	18-Feb-22		Clean filter hall tables.
Filter Hall Floor	18-Feb-22		Sweep and Zamboni filter hall floor.
Low Level Floor	18-Feb-22		Sweep and mop lower level floor.
Lower Level Bathroom	18-Feb-22		Clean toilet, scrub urinal, and mop floor.
Joshua Cover Laboratory	21-Feb-22		Joshua cover laboratory for Eric.
Georgia Ave. x 2	21-Feb-22		Refill reagents on hypo meter, reset tower air circulator, collect Colilert, and return for lab sample.
Erie x 2	21-Feb-22		Check generator, inspect hypo reagents, collect Colilert, and return for lab sample.
Taylor x 2	21-Feb-22		Check reagents, ensure heaters operational, collect Colilert sample, and return to collect lab sample.
Horizon Ave.	21-Feb-22		Check grounds, inspect reagents, and collect lab sample.
Dan Sick Time	21-Feb-22		Dan off sick time.
Joshua Covering Laboratory	22-Feb-22		Joshua covering laboratory for Eric.
Clean NTU Meters	22-Feb-22		Clean East, West, and South NTU meters.
Collect Laboratory Samples	22-Feb-22		Collect laboratory samples for Colilert tests; Horizon, Wilgus, Georgia, and EE.
Georgia Ave.	22-Feb-22		Bring new reagents and free ice from tank air mixing drain.
High Lift Service	22-Feb-22		Link up with crew to discuss ortho bulk tank install and high lift line repair.
Laboratory Cabinets and Pricing	23-Feb-22		Look up parts, pricing, and gain approval for cabinet replacement.
Ops Office Shelf	23-Feb-22		Install shelf in ops office.
Dan operating 1st shift	24-Feb-22	25-Feb-22	Dan covering 1st shift operations
Suction Well Recycle Line	24-Feb-22		Find, de-ice, and close valve.
Alum Feed Tubes	24-Feb-22		Replace all three feed tubes, rinse feed lines, and lube rollers on south.
High Lift RPZ	24-Feb-22		Map and diagram high lift RPZ lines.
High Lift Cooling Water	24-Feb-22		Map and diagram high lift and low lift packing water lines.
Plant Generator	25-Feb-22		Check coolant, inspect oil level, return rebuilt water pump to locker, etc.
High Lift Cooling Water	25-Feb-22		Continue mapping high lift packing water lines.
UVT% Meters	25-Feb-22		Clean, add CLR, change desiccant packs, calibrate, and check flow.
Shovel Filter Plant Grounds	25-Feb-22		Shovel and salt filter plant grounds.
H.L. Pit Lights	28-Feb-22		Continue game planning H.L. pit lights, conduit, and plumbing.
Monday Meeting	28-Feb-22		Coverage, raw water improvement project, SMART goals, crew work, orthophosphate bulk tank expansion, etc.